

STATEMENT OF
KEVIN SHELLEY, CALIFORNIA SECRETARY OF STATE
BEFORE THE
US ELECTION ASSISTANCE COMMISSION

May 5, 2004

Thank you, Mr. Chairman and Members of the Commission, for the opportunity to participate in the Election Assistance Commission's critically important hearing on the use, reliability and security of electronic voting systems.

As California's Secretary of State, I have no higher priorities than making sure as many

votes as possible are cast and every vote is fairly counted.

That is why I am working so hard to make sure that every Californian can cast their vote with confidence.

Unfortunately, many voters are either discouraged or too disconnected to make their voice heard at the polls.

We certainly cannot bring these voters back to the polls if they are also distrustful of the way their ballots are counted.

That is why I would like to briefly update you on my efforts as Secretary of State to restore voter confidence in the integrity of the voting process.

As you know, just last week, I followed the unanimous recommendation of our panel of experts and banned the use of Diebold TSx touch screen voting systems in four counties.

Similarly, I followed the panel's unanimous recommendation to decertify all touch screen systems in California until security

measures are in place to safeguard the November vote. In particular, I am requiring counties to install a voter verified paper trail before November, or to meet a series of security measures before I recertify those systems. These measures include everything from ensuring the physical security of touchscreen machines to prohibiting connections to telephone modems during voting. Many of these recommendations stem from the RABA report, which many previous speakers have addressed.

I recognize these steps have been controversial in some quarters. Some local elections officials do not agree that touch screens are vulnerable.

I greatly respect and admire the great work of these county registrars. I am acutely aware of the fact that they are on the front lines, that they are the ones the public relies on to put on an election, and that, time after time, they have come through for the voters. So it is with great reluctance that I disagree with their assessment of the security and reliability of touchscreen

systems. But I want to be clear. I do believe touchscreen systems can be reliable and secure. But the evidence to date suggests they are neither right now.

Touchscreen systems can and should be *more* secure and *more* reliable. I know this panel will play a key role in facilitating the changes needed.

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We have come a long way since November 2000. California's March 2, 2004 Primary Election was the first election in modern

times in which no pre-scored punch card voting machines were used. It was also the first election in which over 40% of California voters were eligible to cast their ballots on electronic voting systems.

(Interestingly, the same 40% of our electorate is also 40% of all the touchscreens in use in America.)

Touchscreen voting machines create the possibility of making voting easier, and drawing the disenfranchised to the polls. In particular, touchscreens have obvious

advantages for the disabled and non-English speaking voters.

Unfortunately, touchscreens share many of the problems we experience with our home computers. Both are complex, prone to glitches, and vulnerable to security challenges.

As much as I welcome the demise of punchcards, we must recognize that the use of computer systems in voting poses profound challenges to elections officials and regulators – far more profound than

any of us realized when the President signed HAVA eighteen months ago, and, perhaps, more profound than we realize even now.

I have come to Washington today to speak with you about those challenges in the hope that we can *work* together to address them. I have had a number of opportunities to speak with the Chair, Mr. Soaries, as well as the Vice Chair, Ms. Hillman.

I am convinced the EAC can take a number of measures that will greatly enhance the likelihood that touchscreens will fulfill their promise of opening the polls to more voters and ensuring that every vote counts.

Today, I would like to address three important issues:

- (1) The need for an accessible, voter verified paper trail;**
- (2) Improving federal and state testing procedures; and**

(3) The need for enhanced poll worker training.

I. Paper Trail

First, I would like to address the need for accessible voter verified paper trails.

I was proud to be the first Secretary of State to require an accessible, voter verified paper audit trail. I firmly believe that, of all the changes that can improve touchscreens, a voter verified paper trail is the most important.

We know that the possibility exists for data to be corrupted or lost, either due to security breaches, human errors, or malfunctions.

While the likelihood of malfunctions is small, the likelihood of security breaches and human error, in my view, is much greater.

Is there anyone out there who would attempt to “hack” an election?

I would like to think not. But, the history of the Internet suggests otherwise. And the

irretrievable loss of election results in even a single county in the nation could make the problems experienced with punchcards in Florida look like a minor glitch.

A voter verified paper trail provides an ironclad way to recount votes, knowing that the paper record will match the ballots actually cast. Moreover, voters understandably feel more confident when they can verify that their votes are being recorded as intended. That increased level of confidence, alone, justifies moving

forward with a verifiable paper trail right away.

In November 2003, I announced that I would require an accessible voter verified paper audit trail.

Under this directive, beginning July 1, 2005, no county or city in California may purchase a new touch screen voting system that does not include an accessible verified paper audit trail.

Last week, in light of problems that occurred in the March 2, 2004 primary election, I modified this order to make it effective immediately.

We are also in the process of adopting the first set of standards for voter verified paper trails, which will be in place by the end of this month.

I urge the EAC to follow suit and initiate its process for the adoption of federal standards immediately, so that an accessible voter verified paper audit trail

will be available for use in the November 2004 election.

I have been told repeatedly that we cannot have a voter verified paper trail in time for the November election.

I am here to challenge that view.

Most manufacturers appear poised to roll out voter verified paper trails. However, they lack two things:

- (1) clear guidance as to the standards for such systems.**
- (2) sufficient pressure from the regulators to produce a paper trail in the short time before the election.**

This panel must begin the process of updating the Voting System Standards to add new guidelines for a voter verified paper audit trail. There should be a set of uniform, rigorous federal standards telling vendors what is expected of them in the development of these systems. Those standards must provide full accessibility to

enable all voters to have the ability to verify their votes -- truly accessible voter verified paper trails.

Again, I urge you to do everything in your power to establish federal guidelines for voter verified paper trails now so that we can have voter verified paper trails in time for November.

II. Improving testing

This panel performs a function at the federal level which is similar in some ways to the functions my office performs at the

state level. We are called upon to set standards for voting equipment and to oversee testing. At both the federal and state levels, I submit that, presently, we are poorly equipped to meet this challenge with respect to touchscreen equipment.

A story from the March 2 election illustrates this point.

In the final weeks before California's March Primary election every touchscreen voting system vendor sought approval of last-minute changes to software, firmware or

hardware. One vendor actually submitted ten requests for last-minute changes.

This 11th hour deluge of requests for software, firmware and hardware changes was alarming.

Many of these changes had not received federal qualification—and in some cases had not even been *tested* for federal qualification.

Equally troubling, election equipment vendors had no backup plan if last minute applications failed testing.

The result was a choice between using equipment that had not been fully tested and approved or using no equipment at all.

One of those 11th hour requests came from Diebold to permit the use of a machine referred to as a “PCM 500” or Precinct Control Module.

As you know, this device encodes cards that voters use in touchscreen systems to bring up their ballot.

We turned the request down because it was too close to the election and the equipment had not been federally tested.

We were then contacted by registrars in two counties who told us – literally -- that they could not conduct the election without this equipment.

To make a long story short, less than two weeks before the election, the federal ITA approved use of the PCM devices limited to the March Primary. The report stressed that the ITA only had time to conduct *limited functional testing*.

This is no way to prepare for any election and I don't need to tell you how this ends...

As you know, over half the polling places in San Diego County opened late and voters were turned away. And the PCM was the culprit.

Similar problems occurred in Alameda. But, unlike in San Diego, Alameda voters were able to cast their ballots.

The difference?

In Alameda County, back-up paper ballots were available at the polling places. Most voters were able to cast provisional ballots that were ultimately counted. San Diego relied on its touchscreens for provisional ballots. So voters simply could not vote –

**sometimes for hours. I consider this a
“worst case scenario.”**

**This is why one of the conditions that I
attached to the use of the touch screens in
November is optional paper ballots at all
polling places.**

So, what did we learn?

**First, touchscreen systems are complex,
and fallible – especially in combination with
human beings.**

Second, at the state level, we need to create pre-election testing deadlines and adhere to them.

But we also need help at the federal level.

The federal government relies on only three companies – Wyle, Ciber and SisTest [*which provides voting system test software*] – for all of its election equipment testing. All three are ITAs – independent testing authorities. All are private companies. Testing is done under contract with equipment vendors and

paid for by the vendors; effectively, the vendors are clients of Wyle and Ciber.

Unfortunately, it appears that the only thing that the ITAs are independent from are elections officials. It is nearly impossible for a state, or any public agency to get information from the ITAs.

At the federal level, I suggest 4 changes.

First, the ITAs should report to government agencies, not the vendors, regarding the testing of vendors' systems. We need a

meaningful level of oversight and management of the ITAs. The EAC must provide this oversight.

Second, there should be a greater number of ITAs.

The entire process would be far smoother if there were more than just one certified ITA for hardware and firmware. This operates as a bottleneck. Systems take so long to get tested and qualified that requirements may change during testing, requiring re-

testing. There should be multiple ITAs so that one ITA is not overwhelmed.

Third, the timelines for testing and the results of testing should be made available to state and local government election officials – so that we are not required to essentially duplicate the federal process or wait forever for results of tests that never come.

Currently, states have to rely on vendors for information and vendors have to rely on the ITAs. One way to make the process

more open is to provide status reports on the EAC website, listing the submission date of components as well as the current status of the tests.

Finally, vendors should be required to make their source code available for review by state agencies and other experts to ensure that it is secure.

III. Pollworker Training

Finally, I want to briefly address training issues.

The March 2, 2004 primary revealed a central shortcoming of high technology voting equipment: When things go wrong, it often takes someone with experience and knowledge of computer systems to fix them.

Many poll workers were not adequately trained to handle touchscreen technology and some manufacturers failed to provide adequate documentation and training to elections staff about their systems.

In addition, many of the error messages generated by the touchscreens used in the March 2, 2004 primary provided no information to poll workers about how to fix the problem.

As a result, our newspapers and radio shows were full of stories of teenagers coming to the rescue, showing poll workers how to “reboot” machines. The equipment vendors also fielded large staff of roving trouble-shooters.

While the help is appreciated – and obviously needed -- I have serious concerns about whether school kids or vendors should have unsupervised access to the inner workings of election equipment on election day.

Again, the San Diego PCM failure is illustrative.

While the lion's share of the blame for this failure lies with the vendor, the PCM problem also revealed that poll workers had not been provided adequate training to

know how to bring the system online after startup problems.

In many cases, fixing the PCM machines was only a matter of performing a few keystrokes, but no one had trained pollworkers to perform this task.

And, the machine itself provided error screens that few were trained to interpret.

Until computerized elections systems become more stable and more user-

friendly, poll workers will need to be far more tech-savvy than the average person.

This will require additional training, or more tech-savvy people will need to be recruited as poll workers.

I believe your panel can play a critical role in establishing standards for poll worker training, and standards for the materials vendors produce to ensure they can be understood by people over 25 without advanced computer degrees.

**I have no doubt that our goals are the same
-- increasing voting access for all
Americans.**

**As elections officials, our difficult task is to
increase access to the ballot, while also
maintaining voter confidence and providing
for a reliable verification of ballots cast.**

**In California, we are acting boldly and
responsibly to improve and secure these
systems, in time for November. I challenge
this Agency to do the same. This Agency
should be a resource for every state. The**

Administration and Congress must provide the resources so that you truly can be the voice of the *voters*— not of the *vendors*.

I look forward to continuing to work with you on these important matters.

Thank you for the opportunity to appear before you today.